



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

mk

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,499	03/26/2002	Yasuji Hiramatsu	215899US2PCT	6654
22850	7590	02/17/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			RHEE, JANE J	
			ART UNIT	PAPER NUMBER

1772

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/926,499

Applicant(s)

HIRAMATSU ET AL.

Examiner

Jane J Rhee

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,3 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3 and 5-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/17/2003 has been entered.

### ***Withdrawn Rejections***

2. The 35 U.S.C. 103 over Atari et al. in view of Kawada et al. of claims 1-6,8-10 made in paragraph 1 of Paper 11 has been withdrawn due to applicant's amendment in the response of 11/17/03.

3. The 35 U.S.C. 103 over Atari et al. and Kawada et al. in view of Yano et al. of claim 7 made in paragraph 2 of Paper 11 has been withdrawn due to applicant's amendment in the response of 11/17/03.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 2-10 have been considered but are moot in view of the new ground(s) of rejection.

### ***New Rejections***

### ***Claim Rejections - 35 USC § 102***

Art Unit: 1772

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 2-3,5-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohashi (6261708).

Ohashi discloses a ceramic heater comprising an aluminum nitride ceramic substrate (col. 4 line 14) and a heating element formed inside of the aluminum nitride ceramic substrate (col. 9 lines 15-16) comprises less than 5% of oxygen (col. 9 line 50-52 discloses that the aluminum nitride blocks comprises 5% of yttria which is yttrium oxide therefore the oxygen content would be less than 5% of the aluminum nitride ceramic block), and a leakage quantity of  $1.33 \times 10^{-10}$  Pa m<sup>3</sup>/sec (col. 10 line 59 teaches  $1 \times 10^{-8}$  torr liter/sec which is converted to Pa m<sup>3</sup>/sec as follows,  $1 \times 10^{-8}$  torr liter/sec  $\times 133$  Pa/torr  $\times \text{m}^3/1000\text{L} = 1.33 \times 10^{-10}$  Pa m<sup>3</sup>/sec). Ohashi discloses that the aluminum nitride ceramic substrate has a thickness of 15mm (col. 10 line 52). Ohashi discloses that the aluminum nitride discloses an oxide selected from rare earth oxide (col. 9 line 50, Yttrium oxide is a rare earth oxide). Ohashi discloses that the aluminum nitride ceramic substrate is disk shaped (col. 10 line 51).

The aluminum nitride ceramic substrate used at a temperature of 100 degrees Celsius or higher and also used in the semiconductor industry is an intended use. It has

Art Unit: 1772

been held that a recitation with respect to the manner in which the claimed article is intended to be employed does not differentiate the claimed article from the prior article satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987).

**Conclusion**

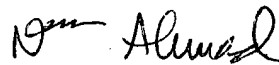
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane J Rhee whose telephone number is 571-272-1499. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Ahmad can be reached on 571-272-1487. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and none for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Jane Rhee  
February 5, 2004



NASSER AHMAD  
PRIMARY EXAMINER